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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,585	12/18/2001	Heather Steiner Brown	10541-595	7916

7590 11/20/2002
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EXAMINER

AMARANTIDES, JOHN

ART UNIT PAPER NUMBER

2875

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,585	BROWN, HEATHER STEINER	
	Examiner	Art Unit	
	John Amarantides	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "34" and "36" have both been used to designate the same wire. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- a. Figure 1, reference number 38.
- b. Figure 3, reference number 31.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims are objected to because of the following informalities: The claims on page 7, should be preceded by the phrase, "I claim:". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. The specification is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

a. The specification lists some of the essential structural elements of the inventions (movable headlight, ECU, acceleration sensor), but fails to identify how the structural elements are interconnected. The stepper motor identified in the specification, but not claimed or shown in the drawings is crucial to the headlight adjustment feature of the invention. The headlight would also require adjustable linkage that could be hydraulic, mechanical, or electro-mechanical or hydraulic. The communication line between the ECU and the stepper motor. The headlight control switch on the dash and how it is wired for power and communication with the ECU.

b. Claims 1, 5, 7, 11 and 14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims are rejected for the reasons given above.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 5, 7, 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: The stepper motor identified in the specification, but not claimed or shown in the drawings is crucial to the headlight adjustment

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feature of the invention. The headlight would also require adjustable linkage between the ECU and the headlight that could be hydraulic, mechanical, or electro-mechanical/hydraulic. The communication line between the ECU and the stepper motor. The headlight control switch on the dash and how it is wired for power and communication with the ECU.

8. Claims 1, 5, 7, 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: The connections/relationships between the headlight and the ECU to initiate movement of the headlight.

9. Claims 1, 7, 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In regard to claim 1, claim 1 recites the limitation "the vehicle" in line 5. There is insufficient antecedent basis for this limitation in the claim. Vehicle first appears in the preamble as an adjective and not a noun.

b. In regard to claims 7, line 1 and 2, 8, line 5, 11, lines 1 and 2 and 14, lines 1 and 2, claims 7, 8, 11 and 14 recite the limitation "said movable headlights". There is insufficient antecedent basis for this limitation in the claims. In the preceding claims only a single headlight is claimed.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

11. Claims 1, 2, 6, 8 – 10, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Izawa (US006302553B1).

a. In regard to claim 1, line 5, claim 8, line 4 and claim 9 line 2, the word “whereby” is functional and the claimed subject matter following the word “whereby” has been given very little patentable weight.

b. In regard to claim 1, 6, 8, 10, 12 and 13, Izawa teaches all the structural elements of the invention. Izawa in Figures 3 and 4 discloses headlamps (13, 13’), headlamp switch (14) inputted into the ECU (8), and vehicle sensors (9, 10, 11, 14) used to calculate acceleration (S8) to adjust headlights.

c. In regard to claims 2 and 9, Izawa teaches all the structural elements of the invention. Izawa in Figure 4 calculates linear acceleration (S8) and in Figure 5 calculates lateral acceleration (S13, S14).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 3, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izawa (US006302553B1) as applied to claim 1 above, and further in view of A. F. Naylor (US003056303).

a. In regard to claims 3, 4 and 5, Izawa discloses the claimed invention except the metal ball sensor inside a sphere filled with a fluid and sensors located to the back and side inside the sphere. Naylor in Figure 2 teaches a outer sphere (15) and inner sphere (14) with a fluid layer (16) between the two, the inner sphere also has wound stator (sensors) sections (24, 25, 26) in each quadrant to communicate with gyros. Naylor in Column 1, lines 9 – 16 identifies using this system for angular positioning, translation accelerations, velocities and position of a vehicle with relation to inertial space. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use Naylor's inertial reference (10) system in place of the sensor system of Izawa in order to minimize wiring to sensors located in different locations of the vehicle.

14. Claims 7, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izawa (US006302553B1).

a. In regard to claims 7, 11 and 14, as best understood by the examiner, Izawa in column 3, lines 24 – 35 recites four different methods and sensors (speed, steering angle, acceleration and rolling or yawing angle) that can provide data to the ECU 8, which contains a CPU (column 7, lines 7 – 9) to be used to control and adjust headlights. Izawa in column 3, lines 40 – 53 discloses that any of the methods or sensors could be used independently or in combination to control and adjust the headlights. The ECU/CPU is

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capable of determining a multitude of headlight positions and combinations based on data collected or not collected from a variety of sensors and constants set for time delays, velocity, acceleration, steering angle, yaw rate and rolling angle. Also in view of the safety issues associated with vehicle lighting and the effect on oncoming traffic, qualified industry personnel should set response settings and controls to Federal and State standards for reflectors. The recitation "the ECU causes said movable headlights to move without an input measuring the steering wheel angle" is also functional and has been given little patentable weight. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to set approved limit controls in the ECU/CPU to signal the headlights of Izawa's through the motor controllers to adjust accordingly for the current driving condition, in order to enhance driving safety and improve night vision through improved reactive headlamps for lighting. Proper lighting is vital for safe driving conditions at night.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to adjustable vehicle headlight systems.

- a. US006142655A to Zillgitt et al.
- b. US006130506A to Lopez et al.
- c. US005581034A to Dao et al.
- d. US005526242A to Takahashi et al.


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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Amarantides whose telephone number is 703-305-4013.

The examiner can normally be reached 8:00am-4:30pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Sember can be reached on 703-308-1938. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3329.

JA 
November 12, 2002


Thomas M. Sember
Primary Examiner